

1976. Vol. 24 Indexes

Editors: Walter C. McCrone

Geoffrey D. Woodard

Published by Microscope Publications Ltd., Chicago and London

Author Index

VOLUME 24

ADAMS, M. D.: Initial reactions in phosphate casting refractories, (Abstract) 322

ALLEN, R. P.: A new electronic flash for photomicrography, (Abstract) 308

AUS, H., et al.: A note on the usefulness of multi-color scanning and image processing in cell biology, 39

BARTELL, L. S.: Images of gas atoms by electron holography, (Abstract) 315

BESANT, C. B.: see Lycos, T., 199

BROWN, J. A.: A new approach to the SEM examination of pigment dispersion in paint films, (Abstract) 312

BRYANT, W. M. D.: Optical crystallographic properties of some biologically important organic bases and their derivatives, (Abstract) 306

BRYANT, W. M. D.: Some interesting crystals, 261

BUTTON, R.: A self-calibrating densitometer for image analysis, (Abstract) 317

COATES, D., et al.: The structures and microscopic textures of smectic liquid crystals, 117

COATES, V. J.: Nanospec/10- A wide range and general purpose computerized microspectrophotometer system, (Abstract) 317

COCKS, G. G.: The nucleation and growth of ice crystals from the melt, (Abstract) 322

DELLY, J. G.: Microscopes on postage stamps, 279

DODD, J. G.: A holographic attachment for the light microscope, (Abstract) 320

EINS, S., et al.: Assessment of preporative volume changes in central nervous tissue using automatic image analysis, 29

ELLIS, S. G.: Methods for measuring packaging film flatness (with potential applications to some replicas), 253

ESCOVITZ, W. H., et al.: Progress with the scanning transmission ion microscope, (Abstract) 315

ETZ, E. S., et al.: The spectroscopic identification of small particles with a new laser Raman microprobe, (Abstract) 319

FORD, B. J.: Towards a new microscopy, 295

FOX, T. R.: see Escovitz, W. H., (Abstract) 315

FREERE, R. H.: see Rickwood, P. C., 151

FRYER, F. E.: Köhler illumination with fibre optics, (Abstract) 310

GARRETT, H. L., et al.: Simple oblique transmitted light techniques for photomacrography and photomicrography, (Abstract) 310

GASIECKI, E. A.: Quantitative topographic data from a scanning electron microscope, (Abstract) 322

GAVRILOVIC, J.: Identification of thin surface films on small particles, (Abstract) 318

GLENISTER, P. R.: The microscopy of beer sediments, (Abstract) 311

GOLDBERG, O.: An obvious illuminator for dispersion staining, 291

GRAFT, J. W., et al.: Can you sharpen that up a bit, (Abstract) 303

GRAY, G. W.: see Coates, D., 117

GROSS, L.: An extended the sy of image formation, (Abstract) 315

GUMPERTZ, W. E.: Terminology, conventional and unconventional, (Abstract) 311

GUNZER, U.: see Aus, H., 39

HARLING, D. F.: The analytical electron microscope – instrumentation and applications, (Abstract) 311

HARTSHORNE, N. H.: The hot-wire stage. II. Further notes on the temperature gradient and the determination of transition temperatures, 217

HILL, P.: A new computer – controlled microscope photometer system, (abstract) 316

HILLIARD, J. E.: A user-oriented automatic scanning optical microscope, (Abstract) 314

HOUGARDY, H. P.: Recent progress in automatic image analysis instrumentation, 7

HUNN, W.: Microstructural analysis by photometer and TV image analysis, (Abstract) 316

JARVIS, R. A.: Focus optimisation criteria for computer image processing, 163

JESSE, A.: Automatic image analysis— 1976, 1

JESSE, A.: Bibliography on automatic image analysis (1973-1975), 65

JOHNSTON, E. M., et al.: Computer analysis of phytoplankton cell images, 181

KAPP, R. O.: Techniques and applications of pollen studies, (Abstract) 321

KESSLER, L. W.: Sonic microscopy for materials research and analysis, (Abstract) 313

KOHLBECK, J. A., et al.: Microscopical analysis of graphite fiber reinforced epoxy matrix laminates, (Abstract) 309

KORDAN, H. A.: Cellophane – tape for making rapid permanent squash preparations of plant material, 243

KRC, J, Jr.: Crystallographic properties of flufenamic acid, $N-(\alpha,\alpha,\alpha,$ trifluoro-m-tolyl) anthranilic acid, (Abstract) 306

LEV, E.: The PDS-200 inspection system, (Abstract) 314

LEVI-SETTI, R.: see Escovitz, W. H., (Abstract) 315

LEVY, J. D., et al.: A simplified approach to quantitative image analysis, (Abstract) 316

LYCOS, T., et al.: Measurement of fast reaction rates using solid-state track recorders, 199

MEULEN, ter V.: see Aus, H., 39

McCRONE, W. C.: Characterization of human hair by light microscopy, (Abstract) 304

McHUGH, G. F.: see Kohlbeck, J. A., (Abstract) 309

MILBY, T. H.: Softening refractory material for histological study – a bibliography of techniques, 237

MILLER, A. K. H.: A device to allow automatic scanning of irregular areas on the Quantimet image analysing computer, 275

MORROW, S. I.: Microscopical study of the role of free radical processes in the thermal decomposition of nitrocellulose, 227

MORROW, S. I.: The strange iodide effect in nitrocellulose, (Abstract) 305

PALENIK, S.: Subnanogram microchemical tests for complex substances, (Abstract) 304

PARK, E. D.: The Polanret (18) microscope and some of its applications, (Abstract) 307

PAYNE, D. A.: Ceramic microscopy and the hardness microprobe, (Abstract) 312

PEACH, J. A.: see Levy, J. D., (Abstract) 316

PRITIKIN, W.: Use of optical diffraction in the study of fibrous structures, (Abstract) 321

QUATE, C. F.: The scanning acoustic microscope, (Abstract) 313

RALPH, B.: see Slater, J., 25

REFFNER, J. A.: Conoscopy of polymer films, (Abstract) 307

RENNER, R. H.: A problem with prolonged cure time in ammonium perchlorate (AP) — containing polyurethane binder composition, (Abstract) 309

RENNER, R. H.: Photomicrographs ≠ art, (Abstract) 303

RICHARDS, O. W.: The biomedical applications of the Polanret Microscope, (Abstract) 308

RICKWOOD, P. C., et al.: A unified stereological system for geological and biological applications, 151

RITCHIE, A. E.: Microbiological applications of direct immuno-electron microscopy, (Abstract) 305

ROSASCO, G. J.: see Etz, E. S., (Abstract) 319

SCOTT, M. L.: Understanding photographic sensitivity, (Abstract) 320

SEIDENBERG, R. L.: The visibility of microscopic objects, (Abstract) 321

SELDEN, M. G. Jr.: How to mathematically model particle size distributions, 213

SLATER, J., et al.: The status of automatic image analysis in materials science and technology, 25

STEWART, I. M.: see Graft, J. W., (Abstract) 303

STOERMER, E. F.: see Johnston, E. M., 181

TEETSOV, A. S.: Techniques of small particle manipulation, (Abstract) 318

TRAYLOR, P. A.: see Garrett, H. L., (Abstract) 310

UNDERWOOD, E. E.: Quantitative shape parameters for microstructural features, 49

UNDERWOOD, E. E.: Trends in stereology, 45

WEIDNER, J. C.: see Kohlbeck, J. A., (Abstract) 309

WHITMAN, V. L., et al.: Extended use of squaric acid as a reagent in chemical microscopy, (Abstract) 303

WILHELMS, E.: see Eins, S., 29

WILLS, W. F. Jr.: see Whitman, V. L., (Abstract) 303

THE MICROSCOPE

Subject Index

VOLUME 24

Automatic	image	analysis,	see	Image
Analysis				

Beer sediments, (Abstract) 311 Biological applications of a unified stereological system, 151

Casting refractories, initial reactions, (Abstract) 322

Cell biology, use of image analysis, 39 Ceramic microscopy and the hardness microprobe, (Abstract) 312

Chemical microscopy,

use of squaric acid, (Abstract) 303 tests for complex substances, (Abstract) 304

Computer analysis of phytoplankton cell images, 181

Computer image processing, focus optimisation criteria, 163

Conoscopy of polymer films, (Abstract) 307

Crystallography,

ammonium perchlorate with polyurethane binder, (Abstract) 309

biologically important organic bases, (Abstract) 306 flufenamic acid, (Abstract) 306

organic compounds, 261

tests for complex substances, (Abstract) 304

Densitometer, self calibrating for image analysis, (Abstract) 317

Dispersion staining, a new illuminator, 291

Electron holography, image of gas atoms, (Abstract) 315

Electron microscope, new analytical instrument, (Abstract) 311

Electron microscopy,

immuno, microbiological applications, (Abstract) 305

scanning, pigment dispersion in paint films, (Abstract) 312 scanning, quantitative topographic data, (Abstract) 322

Fibre reinforced epoxy laminates, (Abstract) 309

Fibre optics, Köhler ilumination, (Abstract) 310

Fibrous structures, optical diffraction, (Abstract) 321

Film thickness, method for measuring, 253

Focus optimisation criteria for computer image processing, 163

Geological applications of a unified stereological system, 151

Graphite fibre reinforced epoxy laminates, (Abstract) 309

Hair, characterisation by light microscopy, (Abstract) 304

Histology, softening refractory materials, 237

Hot-wire stage, further notes on the temperature gradient and the determination of transition temperatures, 217

Human hair, characterisation by light microscopy, (Abstract) 304

Image analysis,

assessment of preparative volume changes in central nervous tissue, 29

automatic scanning of irregular areas, 275

bibliography, 65 biological, 29, 39

calibrating densitometer, (Abstract) 317

cell biology, 39

color scanning and image processing in cell biology, 39

instrumentation, 7

materials science, 25

microstructural analysis, (Abstract)

multi-color scanning and image processing in cell biology, 39

PDS-200 inspection system, (Abstract) 314

quantitative, (Abstract) 316

review, 1

shape parameters for microstructural features, 49

stereology, 45 technology, 25

volume changes in central nervous tissue, 29

Image formation, an extended theory, (Abstract) 315

Image processing, focusing criteria for computer, 163

Ion microscope, scanning transmission instrument, (Abstract) 315

Laser Raman microprobe, spectroscopic identification, (Abstract) 319

Liquid crystals, structures and microscopic textures, 117

Materials research, sonic microscopy, (Abstract) 313

Materials science and technology, image analysis, 25

Microbiological applications of direct immuno-electron microscopy, (Abstract) 305

Microchemical tests for complex substances, (Abstract) 304

Microscopes on postage stamps, 279 Microscopic objects, visibility, (Abstract) 321

Microscopic textures of smectic liquid crystals, 117

Microscopical study of the role of free radical processes in the thermal decomposition of nitrocellulose, 227

Microscopy, 295

Microspectrophotometer system, Nanospec/10, (Abstract) 317 Microstructural analysis by photometric and TV image analysis, (Abstract) 316

Microstructural features, shape parameters, 49

Multi-color scanning and image processing in cell biology, 39

Nanospec/10, computerised microspectrophotometer system, (Abstract) 317

Nervous tissue, assessment of volume changes using image analysis, 29
Nitrocellulose, effect of jodide.

(Abstract) 305

Nitrocellulose, thermal decomposition, 227

Paint films, pigment dispersion, (Abstract) 312

Particle manipulation, (Abstract) 318 Particle size distributions, mathematical modelling, 213

Photographic sensitivity, (Abstract) 320
Photometer system, computer controlled, (Abstract) 316
Photomicrographs - Art, 303

Photomicrography, new electronic flash, (Abstract) 308

Photomicrography, oblique transmitted light techniques, (Abstract) 310 Phytoplankton cell images, computer

analysis, 181
Polanret microscope, biomedical applications, (Abstract) 308

Polariet microscope, some if its applications, (Abstract) 307

Pollen studies, techniques and applications, (Abstract) 321

Polymer films, conoscopy, (Abstract) 307

Quantitative image analysis, a simplified approach, (Abstract) 316 Quantitative shape parameters for microstructural features, 49

Scanning acoustic microscope, (Abstract) 313

Scanning optical microscope, (Abstract) 314

Scanning transmission ion microscope, (Abstract) 315

Shape parameters for microstructural features, 49 Smectic liquid crystals, 117

Sonic microscopy for materials research

and analysis, (Abstract) 313

Squash preparations, cellophane-tape method, 243

Stereological system for geological and biological applications, 151

Stereology, trends, 45 Surface films on small particles, identification, (Abstract) 318

Terminology, (Abstract) 311
Track counting, fast reactor reaction rates. 199